

Notice of Allowability

Application No.

10/664,878

Examiner

Jin-Cheng Wang

Applicant(s)

TAKESHIMA ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/30/2006.
2. ☒ The allowed claim(s) is/are 14, 29 and 38.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6/30/06, 2-11-04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Reasons for Allowance

Claims 14, 29, and 38 are allowed. The following is an examiner's statement of reasons for allowance of these claims: Nothing in the prior art anticipates or suggests, *"wherein the determining the extraction parameter comprises: (a) detecting temporary object regions from the respective frames of the first moving image using a temporary extraction parameter; (b) extracting a plurality of temporary object images from the respective frames of the first moving image using the temporary object regions; (c) generating a temporary strobe composite image in which the plurality of temporary object images are superposed; (d) calculating an error between the answer strobe composite image and the temporary strobe composite image; and repeating (a) to (d) while changing the temporary extraction parameter, and determining the temporary extraction parameter which minimizes the error as the extraction parameter"* in an image composition method comprising: inputting a first moving image; inputting answer object regions for respective frames of the first moving image; extracting a plurality of answer object images from the respective frames of the first moving image using the answer object regions; generating an answer strobe composite image in which the plurality of answer composite images are superposed; determining an extraction parameter which depends on the answer strobe composite image; inputting a second moving image; extracting object images from respective frames of the second moving image using the extraction parameter; and generating a strobe composite image in which the object images extracted from the respective frames of the second moving image are superposed; and wherein the determining the extraction parameter comprises: (a) detecting temporary object regions from the respective frames of the first moving image using a temporary extraction parameter; (b) extracting a plurality of temporary object images from the respective

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frames of the first moving image using the temporary object regions; (c) generating a temporary strobe composite image in which the plurality of temporary object images are superposed; (d) calculating an error between the answer strobe composite image and the temporary strobe composite image; and repeating (a) to (d) while changing the temporary extraction parameter, and determining the temporary extraction parameter which minimizes the error as the extraction parameter; set forth in the independent claims 14, 29 and 38.

The cited reference to Brown et al. U.S. Patent No. 6,665,342 (hereinafter Brown) discloses an image composition method for generating a strobe composite image from a plurality of frames of a moving image, the method comprising: *selecting a first frame 315A of Fig. 4 from the plurality of frames of the video wherein the first frame is a still frame; starting with the first two frames 315A and 315B to compute the attribute difference for each pair of point-wise pixels in the two frames, and updating the segmentation mask and the strobe photo; see Figs. 4-6 and column 7, lines 45-59; setting the attribute difference threshold, user entering the strobe parameters such as the start frame, the end frame, and the time interval and thereby setting how a strobe composite image is synthesized; see column 6, lines 63-67; updating the strobe photo by superposing the plurality of the video frames using the iterator 520, i.e., the strobe photo is updated/composited using the plurality of video frames of the moving object and the composition is performed in accordance with the set superposing rule and the segmentation mask; see column 7-8. Brown discloses the sampling of frames for superposition using the sampled order including any one of more of the following: a consecutive sampling; a sampling every nth frame where n is any whole number; a reverse sampling, and a variable sampling (See Brown column 9, lines 55-60 and column 7, lines 45-65). Consecutive sampling corresponds to the claim*

limitation of “a manner of superposing a frame at a later time on a frame at an earlier time and reverse sampling corresponds to the claim limitation of “a manner of superposing a frame at an earlier time on a frame at a later time.”

Brown does not disclose the claim limitation of “wherein the determining the extraction parameter comprises: (a) detecting temporary object regions from the respective frames of the first moving image using a temporary extraction parameter; (b) extracting a plurality of temporary object images from the respective frames of the first moving image using the temporary object regions; (c) generating a temporary strobe composite image in which the plurality of temporary object images are superposed; (d) calculating an error between the answer strobe composite image and the temporary strobe composite image; and repeating (a) to (d) while changing the temporary extraction parameter, and determining the temporary extraction parameter which minimizes the error as the extraction parameter” set forth in the independent claims 14, 29 and 38.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

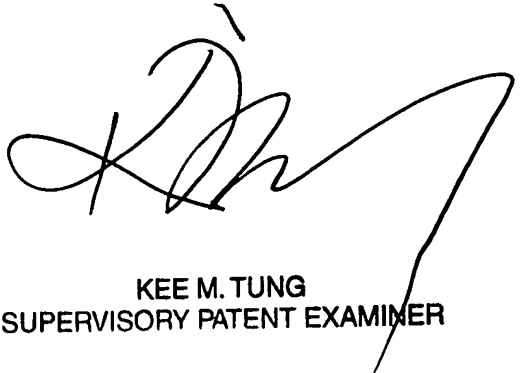
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (571) 272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw



KEE M. TUNG
SUPERVISORY PATENT EXAMINER